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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/147,319 02/24/99 LEIJON

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EXAMINER

ENAD, E

ART UNIT

PAPER NUMBER

2834

DATE MAILED:

10/25/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/147,318

Applicant(s)
Leijon et al.

Examiner
Enad, Elvin

Group Art Unit
2834



☒ Responsive to communication(s) filed on Aug 22, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 18-36 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 18-36 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 18 and 31 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the above claims, the limitations pertaining to the solid insulation arranged “to be between” the inner semiconducting layer and the outer semiconducting layer is indefinite.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 18-36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shildneck (USP 3,014,139) in view of Elton et al. (USP 4,853,565) and further in view of Grant (USP 5,325,008).

Shildneck discloses the claimed invention except for having his cable winding comprised of at least one semiconducting layer around the conductor and utilizing a spring member in the stator slot for reducing vibration problems. Shildneck discloses an improved continuous winding for an electromagnetic device such as a large turbine-driven generator, the winding employing an

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improved form of flexible insulated conductor for the laminated armature core of the dynamo electric machine.

Elton et al. teach that it is known to have an electrical cable comprising an internal grading layer of semi-conducting pyrolyzed glass fiber layer in electrical contact with the cable conductor. In another form of embodiment, Elton et al. teach an electrical cable provided with an exterior layer of internal grading layer of semi-conducting pyrolyzed glass fiber layer in contact with an exterior cable insulator in a predetermined reference potential. In figure 7, Elton et al. teach having his electrical conductor comprised of a solid insulation layer **106** between two semi-conducting pyrolyzed glass fibers **104, 110**, the internal grading layer **104** surrounding the conductors of cable **100**.

Grant teaches that it is known to provide spring member(s) disposed either axially or radially along the stator winding wound in stator slots for the purpose of restricting movement of the windings. Furthermore, Grant teaches a method of installing the spring members whereby the spring members are adhesively secured to flat surfaces, i.e. fillers strips, and at a predetermined elevated temperature, the adhesive is broken, enabling the spring to expand into a natural corrugated shape to apply the loading against the stator winding and wedges.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the high voltage cable as taught by Elton et al. as winding conductors to the stator as disclosed by Shildneck since such a modification according to Elton et al. would provide a cable that is flexible, prohibit the development of corona discharge and equalize the

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electrical charge generated between two layers. Furthermore, it would have been obvious to utilize the teachings of Grant and to have provided a spring member between the conductor(s) and/or the conductors and the stator slots of Shildneck since such a modification according to column 1, lines 36-49 of Grant would prevent the conductors cable from movement reducing stress in the internal conductor.

4. With regard to claim 32, it would have been obvious to have the inner semiconductor layer and the outer semiconductor layer to have a substantially the same coefficient of thermal expansion to the insulation in order to prevent cracking and to reduce strain.

5. With regard to claims 21-24, note column 1, lines 48 through column 2, lines 1-7 of Grant, whereby Grant teaches another method of assembling and inserting the ripple springs by means of first disposing filler strips in the space between the wedges and the stator conductors and then removing the filler strips so that the springs could be inserted.

Response to Arguments

6. Applicant's arguments filed on August 22, 2000, have been fully considered but they are not persuasive. In response to the office action of February 2, 2000, applicant has amended independent claims 18,31 and 36 respectively.

In regard to the new limitation added which recites the stator winding drawn to the stator slots forming a continuous full turn, applicant's attention is drawn to figure 3 of Shildneck

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whereby Shildneck show his stator windings **18** drawn to the stator slots **15, 16** in a continuous full turn.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire **THREE MONTHS** from the date of this action. In the event a first response is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elvin Enad whose telephone number is (703) 308-7619. The examiner can normally be reached on Monday-Friday from 8:00AM to 4:00PM.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez, can be reached on (703) 308-1371. The fax phone number for this Tech Center is (703) 305-3431(32).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Elvin Enad
Primary Examiner
Art Unit 2834
10.23.2000